



VA ResearchCurrents

'Sunshine vitamin' shines in colon study

In one of the most comprehensive studies to date on colon-cancer risk, a team led by VA, National Cancer Institute and Harvard researchers confirmed that proper intake of cereal fiber and vitamin D are associated with reduced risk of serious colon polyps that may lead to the disease. The study appears in the Dec. 10 *Journal of the American Medical Association*.

The study, which included 3,121 veterans at 13 VA medical centers, provides the most concrete evidence yet that vitamin D—the “sunshine vitamin”—may play a role in the prevention of colorectal cancer.

“The finding that may surprise the scientific community is the vitamin D data,” said lead investigator David

Lieberman, MD, chief of gastroenterology at the Portland VA Medical Center and Oregon Health Sciences University. “Vitamin D appears to have a strong protective effect. There have been some studies suggesting this, but our data are compelling.”

In the study, men who consumed higher amounts of cereal fiber—more than about 4 grams per day—and vitamin D—more than 645 international units (IUs) per day—were significantly less likely to have serious colon polyps, or tumors, which are often the precursor to cancer. Also significantly associated with reduced risk was the use of nonsteroidal anti-inflammatory drugs: Men who took a daily aspirin were about two-thirds as

see **COLON** on page 3

Magnuson Award

Nominations for the 2004 Magnuson Award are due Feb. 1. Sponsored by VA's Rehabilitation Research and Development Service, the Magnuson Award is presented annually to a VA rehabilitation investigator who exemplifies dedication to veterans, innovations in practice, and humanitarianism.

The award was established in 1998 in honor of Paul B. Magnuson, MD, a bone and joint surgeon and chief medical director for VA in the years after World War II. He initiated VA's university-affiliation model and was known for his dedication to finding innovative and individualized

see **AWARD** on page 2

Update from Rehabilitation Research and Development (RR&D)

Prosthetics conference furthers VA-DoD research ties

By Mindy Aisen, MD, deputy chief research and development officer; director, RR&D

Ongoing military action in Iraq and Afghanistan is resulting in increasing numbers of traumatic injuries among our troops. Rehabilitation research is a crucial part of ensuring the best possible care for these courageous young men and women, now and in the future.

In support of that goal, we are seeking to expand collaboration between VA and the Department of Defense (DoD) in the area of amputation and prosthetics research and care. An important first step in this process occurred last month in Arlington, VA. Experts from VA and Walter Reed Army Medical Center (WRAMC) participated in a two-day workshop designed to foster joint initiatives in this field. They were joined by researchers and clinicians from

academic and commercial institutions in the United States and abroad.

Thanks to the dedication and hard work of the 70 or so participants—plus the excellent coordination of Danielle M. Kerkovich, PhD, acting assistant director of RR&D, and her staff—the meeting resulted in a number of proposed research projects now under consideration by VA and WRAMC. Among the key topics of discussion at the meeting was the “C-Leg,” a prosthetic leg that features a microprocessor-controlled knee. It costs around \$50,000 and is widely regarded as state of the art. However the leg has never been tested against simpler components in

see **PROSTHETICS** on page 3

Research questions advantages of costly schizophrenia drug

A study at 17 VA hospitals comparing an older, pennies-a-day schizophrenia drug with a newer, far more expensive one found little advantage to the pricier drug. The researchers, who reported their findings in the Nov. 26 issue of the *Journal of the American Medical Association*, say this is the first long-term, rigorously designed experimental study of the newer drug, which boasts U.S. sales of \$2 billion annually.

The researchers compared haloperidol, one of an older class of schizophrenia drugs called typical antipsychotics, to olanzapine, the most expensive among the newer atypical antipsychotics. Used alone, the older medications are more likely to cause troubling side effects such as tremors and twitches. But the study had doctors prescribe haloperidol as they would ideally in actual practice—accompanied from the outset by another drug, benztropine, to minimize side effects.

“We gave the benztropine prophylactically along with the haloperidol, as is needed for a fair and clinically informative comparison,” said lead author Robert Rosenheck, MD, director of VA’s Northeast Program Evaluation Center in West Haven, Conn., and a professor of psychiatry and public health at Yale University

Medical School. “That’s why we think this study is more relevant to everyday practice. We wanted to compare the two drugs in the way they are used in the real world.”

The randomized, double-blinded study, which followed patients for one year, found no differences between the drugs in reducing schizophrenia symptoms or improving quality of life. As for side effects, olanzapine tended to cause weight gain. It resulted in slightly less akathisia, or restlessness, and somewhat better cognitive status, but not enough to improve patients’ quality of life or overall functioning.

Though the drugs produced similar results overall, they come with a whopping difference in price: Olanzapine costs more than \$8 per day per patient, based on VA figures, compared to just about 10 cents per day for the haloperidol-benztpopine combination. And the higher-priced drug didn’t lead to any significant reduction in hospital or outpatient costs.

Up to \$9,000 in higher VA costs

Rosenheck said he does not see the study as prompting a return to the older class of schizophrenia drugs. The newer atypical antipsychotics have become widely accepted over the past 10 years as the first-line choice for treating schizophrenia. But he did say the findings sharply challenge the perception that olanzapine, while costlier at the pharmacy, more than pays for itself by lowering overall health-care and social service costs for its users. In the study, olanzapine was associated with \$3,000 to \$9,000 in greater annual VA costs per patient—mostly due to the higher cost of the drug.

“This study suggests that the advantages of olanzapine may be limited, while costs are considerably greater,” said Rosenheck.

Risperidone, another “atypical” antipsychotic drug, costs about half as much as olanzapine and has shown equal benefits in most clinical trials. According to 2002 figures from VA’s National Psychosis Registry, more than 80 percent of VA patients with schizophrenia are on atypical antipsychotics, with about 37 percent on risperidone and 38 percent on olanzapine. Rosenheck said his team is eager to pursue studies analyzing the benefits of a new long-acting, injectable form of risperidone that is expected to become available in the future and may result in improved compliance.

In related research, four VA hospitals are among 53 sites currently participating in a \$42-million nationwide study, funded by the National Institute of Mental Health, comparing five atypical antipsychotic drugs to each other and to an older, traditional antipsychotic drug. Rosenheck was named director of service use and economic assessment for the study. Results are expected in 2006. ■

AWARD (cont. from pg. 1)

solutions for patients with disabilities. Magnuson Award winners receive a \$5,000 cash award and a plaque, along with an additional \$50,000 per year for three years to support a currently funded, nationally peer-reviewed research project. For more details go to www.vard.org.

Information on other upcoming awards can be found at www.va.gov/resdev/fr/external_awards.cfm.

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PROSTHETICS (cont. from pg. 1)

randomized, double-blinded clinical trials. A compelling research question remains whether some patients—particularly those who are less active—do just as well with a less expensive, less sophisticated device.

Lt. Joseph Miller, CP, MEd, chief prosthetist at WRAMC, led a workgroup that developed a tentative plan for a crossover trial at WRAMC that would have amputees wear the C-Leg for six months and an older, hydraulic-powered model for six months. Attendees debated whether the study could enroll enough participants to produce meaningful data, and whether soldiers' preconceptions of the C-Leg's superiority would bias the study.

The meeting also provided a forum for lively, spirited discussions on the merits and drawbacks of Computer Aided Design and Manufacture (CAD/CAM). This system is generally recognized as the most cost-effective means of producing the sockets into which prosthetic legs are fitted. VA installed CAD/CAM equipment at 36 sites in the mid-1990s. However the system hasn't been widely used, partly due to technology incompatibilities and a lack of education. VA began a dialogue earlier this year with Otto Bock Healthcare, a prosthesis design and manufacturing firm, with the goal of identifying ways to update equipment and expand training within VA.

Today, many VA staff or contract prosthetists still use the manual, "rasp and plaster" method of production. Some prosthetists at the meeting expressed a preference for this method. They regard it as a craft that cannot be replicated by machinery, computers and templates. They said they would like to see VA focus on developing a better mentoring system to train practitioners in manual techniques.

Far more typical at the meeting, however, were comments on the "incredible timesaving" features of CAD/CAM, and its ability to produce precise and replicable results. Acting on this consensus, VA will continue to explore the best ways to reinvigorate and expand out use of this technology.

Another focus at the meeting was osseointegration. In this technique, developed in Sweden, prostheses are affixed to a special titanium bolt anchored directly into the bone of the residual limb, rather than by means of a custom-designed hard-plastic socket and silicone or urethane liner fitted over the stump. This method is said to prevent some of the complications associated with the traditional socket design. Attendees at the meeting talked with Rickard Branemark, MD, PhD, son of the originator of the method, and one of his patients.

A workgroup led by Joseph Czerniecki, MD, assistant chief of rehabilitation for the VA Puget Sound Health Care System, outlined a proposed VA clinical trial of the procedure. His team suggested using MRI or CT-scans to monitor the integration of the titanium into the bone. Research on expediting this process may help overcome one potential drawback of osseointegration and help make it a feasible and attractive option for VA.

Further details about the meeting, including slide presentations, are available on the RR&D website at [vard.org](http://www.vard.org). ■

Deployment research

VA's recent solicitation for studies on the health effects of military deployment can be found on the VA Research website at www.va.gov/resdev/fr/ProgramAnnouncementDeploymentHealthIssues.pdf.

COLON (cont. from pg. 1)

likely to have a tumor. Lieberman said further study is needed before recommending this solely for protection against colon tumors, due to the potential for side effects over a lifetime of anti-inflammatory consumption. Exercise, calcium, folic acid and multivitamins were shown in the study to be marginally beneficial in lowering risk.

The study also found that smoking increased by nearly twofold the risk of having precancerous polyps. Having a close relative with colorectal cancer also elevated risk, but not as much as smoking. The consumption of red meat and alcohol were associated with a slightly higher risk. Body weight and cholesterol proved unrelated to cancer risk in this study.

Lieberman said the findings support current dietary guidelines for the prevention of colorectal cancer.

"These data support relatively simple and safe recommendations to help prevent colon cancer," he said. "Stop smoking, reduce alcohol and red meat consumption, take a multivitamin, exercise regularly, and consume vitamin D, calcium and cereal fiber in your diet." He added that people with a family history of colon cancer should be "screened intensively" and should consult their physicians for advice.

Exposure to sunlight triggers vitamin D production in the body, but researchers are unsure how this interacts with dietary intake to provide adequate levels for cancer protection. Lieberman said his findings should prompt research to determine how regular exposure to sunlight affects the risk of colon cancer. ■

National Hotline Conference Call schedule:
http://vaww.va.gov/resdev/fr/call_calendar.cfm

VA researchers testing two counseling therapies for PTSD in women

Multisite study is largest to date of psychotherapy for disorder

VA is recruiting up to 384 women with current or past military experience and symptoms of posttraumatic stress disorder (PTSD) to test two kinds of psychotherapy for the condition. The study, being conducted through 2005 at one Army hospital and 10 VA medical centers nationwide, is the largest clinical trial ever on psychotherapy for PTSD.

PTSD affects more than 5 million Americans during the course of a year, and some 30 percent of war veterans. Women are at twice the risk for the condition. The new study is comparing two types of cognitive behavioral therapy: prolonged exposure therapy, in which patients repeatedly relive the frightening experience under controlled conditions, to help them work through the trauma; and present-centered therapy, which provides emotional support and helps patients cope with current problems. Prior research has yielded promising results for both treatments, especially exposure

therapy. In addition to psychotherapy, some drugs, such as antidepressants and antianxiety medications, have been shown to help PTSD.

According to study co-chair Paula Schnurr, PhD, the study is extremely timely due to the ongoing war in Iraq

Researchers expect
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to develop PTSD.

and the numbers of women serving there. About 216,000 women are currently on active duty worldwide, with another 151,000 in the Reserves and National Guard.

“About 20 to 25 percent of women who served in the Vietnam War and Gulf War developed PTSD. We’d expect the figures for women serving in

Iraq to be at least as high,” said Schnurr, deputy executive director of VA’s National Center for PTSD, in White River Junction, Vt., where the study is headquartered.

Schnurr pointed out that the \$5 million study is the first multi site VA clinical trial to focus exclusively on women. PTSD is recognized as a significant problem among women veterans. According to Schnurr, not only do many women experience trauma during their military service—some studies show that as many as 40 or 50 percent of active-duty women are sexually assaulted—but many service women have experienced sexual assault, family abuse or other trauma prior to enlisting.

Women taking part in the research will receive 10 weeks of free psychotherapy from a trained female therapist and complete several interviews. The study is supported jointly by VA and the Department of Defense. ■

Inside this issue...

- Vitamin D and colon polyps
- Study questions benefits of costly schizophrenia drug
- VA, DoD meet to forge ties on prosthetics research